

## **AMENDMENTS TO THE CLAIMS**

This listing of claims replaces all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (Currently Amended) In a computing environment that includes a network connected client and server database with services organized in a taxonomy, a method for the server database to obtain web service information for one or more related web services represented at different nodes in the taxonomy, the method comprising:

receiving a request for web service information, the request including a user entered identification data reference node identifier and relationship data indicating a first and a second hierarchical relationship the requested node is to have with the reference node, the user entered identification data reference node identifier identifying a specified web service represented at a specified reference node within the taxonomy, ~~the specified web service having been specified by a computer user, and the user entered relationship data identifying at least a first and a second specified hierarchical relationship, wherein~~ the relationship data ~~indicates~~ indicating that any related web service in any taxonomy having either the first or second specified hierarchical relationship with the specified web service is a related web service of interest to the user;

extracting the ~~identification data~~ reference node identifier and the relationship data from the request;

querying one or more databases in a plurality of different taxonomies located on one or more different computer systems using ~~the identification data and~~ the relationship data to obtain web service information for any web services having at least one the first and the second specified hierarchical relationship with the specified web service of the reference node, the web service information ~~configured for presentation being presentable~~ in a hierarchical format, the hierarchy being based on the specified web service's hierarchical relationship with the reference node and other web services in the plurality of different taxonomies, the nodes of each database comprising at least one of a plurality of root nodes;

receiving web service information that corresponds to any related web services having at least one of the first and the second specified hierarchical relationships with the

specified web service of the reference node in response to the query, the received web service information including the specified web service of the reference node and at least one related web service having at least one of the first and the second specified hierarchical relationships with the specified web service of reference node, the received web service information being displayable in a navigable taxonomy; and

returning the received web service information to the client, the received web service information for graphical presentation at the client to show a user relevant portions of any of the plurality of taxonomies that included related web services having at least one of the first and the second specified hierarchical relationships with the specified web service of the reference node.

2. (Cancelled).

3. (Currently Amended) The method of claim 1 wherein the ~~identification data comprises an identifier of a taxonomy and the~~ relationship data indicates a root node relationship, and wherein returning the web service information in response to the request comprises returning an identifier of at least one root node within the taxonomy.

4. (Previously Presented) The method of claim 3 wherein returning the web service information in response to the request comprises identifying the relationship along with each other node identifier that corresponds to the relationship data.

5. (Currently Amended) The method of claim 1 ~~wherein the identification data comprises an identifier of a taxonomy and a node identifier of a node within the taxonomy, and~~ wherein returning the web service information in response to the request comprises returning at least one other node identifier that corresponds to the relationship data.

6. (Original) The method of claim 5 wherein the relationship data indicates a parent relationship.

7. (Original) The method of claim 5 wherein the relationship data indicates a child

relationship.

8. (Previously Presented) The method of claim 5 wherein returning the web service information in response to the request comprises returning an identifier of another taxonomy.

9. (Previously Presented) The method of claim 8 wherein returning the web service information in response to the request further comprises returning at least one node identifier corresponding to at least one node in another taxonomy.

10. (Original) The method of claim 8 wherein the relationship data indicates an equivalence relationship.

11. (Previously Presented) The method of claim 1 wherein returning the web service information in response to the request further comprises returning at least one attribute value that indicates whether a node corresponding to that attribute value comprises a classification node.

12. (Previously Presented) The method of claim 1 wherein returning the web service information in response to the request further comprises returning at least one text string.

13. (Currently Amended) The method of claim 1 wherein the request includes at least one other ~~set of identification data~~ reference node identifier and relationship data, and wherein the response returns data corresponding to the request in the order in which the ~~identification data~~ reference node identifier and relationship data ~~was~~ were received such that the first set of ~~identification data~~ reference node identifier and relationship data corresponds to a first part of the response and the at least one other set of ~~identification data~~ reference node identifier and relationship data corresponds to a second part of the response.

14. (Previously Presented) The method of claim 1 wherein the request comprises an XML message, and wherein returning the web service information in response to the request further comprises formatting the response as an XML message.

15. (Previously Presented) The method of claim 1 wherein the web service information corresponds to a taxonomy maintained at a UDDI server.

16. (Previously Presented) A recordable-type computer-readable storage medium having computer-executable instructions configured to execute the method of claim 1 in a computer system.

17. (Currently Amended) In a computing environment that includes a network connected client and server database with services organized in a taxonomy, a method for the network connected client to obtain web service information for one or more related web services represented at different nodes in the taxonomy, the method comprising:

constructing a request for web service data regarding one or more related web services, the request including a user entered identification data reference node identifier from which a specified web service represented at ~~a specified~~ the reference node within the taxonomy is identifiable and user entered relationship information that identifies at least a first and a second specified hierarchical relationship, wherein the relationship information indicates that any related web service in any taxonomy having either the first or second specified hierarchical relationship with the specified web service is a related web service of interest to the user;

communicating the request to a server;

receiving a response from the server regarding the requested web service data including the ~~identification data regarding the~~ specified web service of the reference node and the relationship information indicating at least one related web service having either the first or the second specified hierarchical relationship with the specified web service; and

graphically displaying web service information that corresponds to any web services having at least one of the first and the second specified hierarchical relationships with the specified related web services having at least one of the first and second specified hierarchical relationships with the specified web service in a navigable taxonomy configured to show a user relevant portions of any of the plurality of taxonomies that included related web services having at least one of the first and the second specified hierarchical relationships with the specified web service of the reference node.

18. (Currently Amended) The method of claim 17 wherein ~~the identification data comprises a unique identifier and~~ the relationship qualifier indicates a root node relationship with the taxonomy, and wherein the response includes information about at least one root node in the taxonomy.

19. (Currently Amended) The method of claim 17 wherein the ~~identification data~~ reference node identifier further includes node identification data from which a node within the taxonomy is configured to be identified.

20. (Original) The method of claim 19 wherein the relationship qualifier indicates a parent node of a node identified by the node identification data, and wherein the response includes information about the parent node.

21. (Original) The method of claim 19 wherein the relationship qualifier indicates a child node of a node identified by the node identification data, and wherein the response includes information about at least one child node, if any exist.

22. (Original) The method of claim 19 wherein the relationship qualifier indicates an equivalent node of a node identified by the node identification data.

23. (Original) The method of claim 17 wherein receiving the response from the server further includes receiving an attribute value that indicates whether a node in the taxonomy is intended as a classification node.

24. (Original) The method of claim 17 wherein receiving the response from the server further includes receiving at least one text string that corresponds to a node in the taxonomy.

25. (Original) The method of claim 17 wherein constructing a request for taxonomy data comprises constructing an XML message.

26. (Original) The method of claim 25 wherein communicating the request to a server comprises sending the XML message to a UDDI server.

27. (Previously Presented) A computer-readable storage medium having computer-executable instructions configured to execute the method of claim 17 in a computer system.

28. (Currently Amended) In a computing environment that includes a network connected client and server database with services organized in a taxonomy, a system that obtains web service information for one or more nodes in a taxonomy, the system comprising:

~~a client, the client including an application program that presents web service data using received web service data regarding one or more specified web services represented at a specified node, the web service data including information about at least a portion of the web services represented in the taxonomy in a hierarchical format, the hierarchy being based on the web service's relationship with other web services in the taxonomy the received taxonomy data including user entered identification information regarding a web service corresponding to the identification data and user entered relationship information corresponding to a relationship qualifier identifying at least a first and a second specified hierarchical relationship, wherein the relationship data indicates that any related web service having either the first or second specified hierarchical relationship with the specified web service is a related web service of interest to the user; and~~

~~a server that maintains web service data, the server configured to receive web service requests including user entered identification data and relationship data from the client seeking identification information according to the specified web service represented at the node and relationship information that indicates any related web services having at least one of the first and the second specified hierarchical relationship with the specified web service, and in response to each request, to locate the related web services corresponding to the specified web service in the taxonomy and to return a response to the client, the response including the specified web service and at least one related web service being graphically displayable in a navigable taxonomy configured to show a user relevant portions of any of the plurality of taxonomies that included related web services having at least one of the first and the second specified hierarchical relationships with the specified web service~~

a request receiving mechanism configured to receiving a request for web service information, the request including a user entered reference node identifier and relationship data indicating a first and a second hierarchical relationship the requested node is to have with the reference node, the user entered reference node identifier identifying a specified web service represented at a reference node within the taxonomy,

the relationship data indicating that any related web service in any taxonomy having either the first or second specified hierarchical relationship with the specified web service is a related web service of interest to the user;

an extracting mechanism configured to extract the reference node identifier and the relationship data from the request;

a database querying mechanism configured to query one or more databases in a plurality of different taxonomies located on one or more different computer systems using the relationship data to obtain web service information for any web services having at least one the first and the second specified hierarchical relationship with the specified web service of the reference node, the web service information being presentable in a hierarchical format, the hierarchy being based on the specified web service's hierarchical relationship with the reference node and other web services in the plurality of different taxonomies, the nodes of each database comprising at least one of a plurality of root nodes;

a web service information receiving mechanism configured to receive web service information that corresponds to any related web services having at least one of the first and the second specified hierarchical relationships with the specified web service of the reference node in response to the query, the received web service information including the specified web service of the reference node and at least one related web service having at least one of the first and the second specified hierarchical relationships with the specified web service of reference node, the received web service information being displayable in a navigable taxonomy; and

a returning mechanism configured to return the received web service information to the client, the received web service information for graphical presentation at the client to show a user relevant portions of any of the plurality of taxonomies that included related web services having at least one of the first and the second specified hierarchical relationships with the specified web service of the reference node.

29. (Original) The system of claim 28 wherein the relationship information corresponding to the node in the specified taxonomy comprises a root qualifier.



30. (Original) The system of claim 28 wherein the relationship information corresponding to the node in the specified taxonomy comprises a parent qualifier.

31. (Original) The system of claim 28 wherein the relationship information corresponding to the node in the specified taxonomy comprises a child qualifier.

32. (Previously Presented) The system of claim 28 further comprising a database in which the server maintains the web service data.

33. (Previously Presented) The system of claim 28 wherein the web service requests from the client comprise XML messages.

34. (Original) The system of claim 28 wherein the response to the client comprises an XML message.

35. (Original) The system of claim 28 wherein the server comprises a UDDI server.

36. (Previously Presented) The system of claim 28 wherein the client provides the request to the server by calling an application programming interface, the application programming interface formatting the request as a message to communicate with the server and returning the response to the client in response to the application programming interface call.

37-43. (Canceled).

44. (New) The method of claim 1, wherein the received web service information corresponds to an equivalent node in second, different taxonomy, the equivalent node providing the same web service as the reference node as indicated in an equivalence relationship tag.

45. (New) The method of claim 1, wherein one or more nodes include a flag that, when applied to the node, hides the node's existence from the user.